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THE

MEDICAL AND SURGICAL REPORTER.

No. 770.]

PHILADELPHIA, DECEMBER 2, 1871.

[Vol. XXV.—No. 23.]

ORIGINAL DEPARTMENT.

COMMUNICATIONS.

REMOVAL OF AN INVERTED UTERUS WITH AN INTRA-MURAL FIBROUS TUMOR OF THE FUNDUS, BY ECRASEMENT.

(WITH WOOD CUT ILLUSTRATION.)

By THOMAS HAY, M. D.

Of Philadelphia.

The patient, Mrs. M. A. B., æt. 32 years, of York, Pa., came under my care April 17, 1871. She was born of healthy parents; has two brothers and one sister—all living. The father's age is 69 and the mother's 61 years.

The patient was married Dec. 12, 1865, and gave birth to a child—a boy—June 14, 1867, eighteen months after marriage. She was taken in active labor early in the morning, and was delivered with forceps the next day at 11 A. M. There was much suffering connected with the labor, but no flooding or hemorrhage occurred after it. On the twelfth day she sat up out of bed, and in the third week after delivery, began to move about.

She nursed the child till it was about 16 months old, some time in the fall of 1868. The menses came on while she was nursing, when the child was five or six months old, and returned at irregular periods, till some time early in the spring of 1869.

The patient never aborted, and was in good health previous to, and during this, her first and only pregnancy.

In the spring of 1869, about five months after she had weaned the child, while menstruating, she lifted a wash kettle of clothes off the stove, whereupon profuse hemorrhage suddenly came on, which caused her to take to her bed and remain there for several days.

From the spring of 1869 till the spring of 1870, the menses appeared more regularly, but the flow was excessive, and lasted a week or longer at a time, and were accompanied with forcing pains. During this time, when the effusion was going on, she usually was compelled to be in bed. She was under medical advice, but no examination was made per vaginam and the treatment employed consisted mostly of remedies given by the mouth.

About the spring of 1870, the hemorrhage and pains were no longer confined to the menstrual periods. The hemorrhage was almost incessant, and often suddenly alarming, and the forcing pains more frequent and severe. Her condition became more and more aggravated, till, in December, 1870, she was compelled finally to take to her bed, in consequence of an accession of the pains. She suffered agonizing, bearing down, labor-like pains for twenty-four hours, till "suddenly something seemed to come away," when the severe pains subsided, and in the course of several days gradually disappeared, and gave place to an uncomfortable, heavy and tense feeling, confined to the lower abdomen and back, which kept her in bed four weeks. The paroxysm of expulsive pains was followed by retention of urine, and the homœopath who was then in attendance, in his attempts to use the catheter, detected a "retroverted womb in the vagina," and the efforts he made to "replace" the organ were legion.

During and immediately after the paroxysm of greatest suffering, the loss of blood was small, and when the patient was up and about, the hemorrhage was not as great as it had been. It however continued till the operation was performed, but the flow was more uniform and less in quantity, except at periodical in-

tervals of about three or four weeks, when it was greatly increased, and continued six or eight days. While she was still confined to bed, a discharge of sanious pus made its appearance from the vagina, and when she came under my care it was profuse. Since her first trouble, the patient had been under the care of several different physicians of her town, and not knowing the real cause of her illness but fully realizing her critical condition, she sought other advice.

By this time she was almost exsanguinated, and greatly reduced. The discharge of blood and sanies continuing, and debility increasing, her physical exhaustion and mental distress was so great, that she was anxious to be relieved at any risk.

I made an examination, and found the pear-shaped tumor herewith illustrated. The vagina was so completely occupied by the mass that a satisfactory examination, without anesthetizing the patient, was found to be impossible.

As prophylactic measures against the effects of the use of an anæsthetic and an operation, if one should be performed, which at this time I believed would afford the only chance of life, the patient was put to bed, ice was applied over the lower abdomen, from time to time, and large doses of the muriated tincture of iron were administered.

This plan of treatment was carried out faithfully till the day of the operation. It had a happy effect in greatly controlling the flow of blood, and the patient gained strength and was improved.

She was anxious to have her case determined, and wanted the operation performed, if it was to be resorted to, at the earliest possible day; and on the 8th of May, 1871, fourteen days before the operation was performed, and about five days preceding the menstrual period, anæsthesia was induced by my friend, Dr. JAMES W. KERR, of York, Pa., and a careful examination was made. The tumor, projecting downward and pressing on the perineum, was found to occupy the entire vagina, which latter was distended upward and latterly as well as downward.

The tumor could be easily felt in the lower abdomen, and with one hand in the vagina grasping it, and the other pressing upon it in the pubic region, it was found to be movable, and a funnel-shaped opening was distinctly de-

tected in it through the abdominal parietes. Introducing the hand high up into the vagina, the neck of the tumor was found to be surrounded, except anteriorly, by the os uteri, and the sound introduced into the cervix, showed a depth of about half an inch.

As will be seen by reference to the illustration, there was no defined pedicle, and while it was clear we had an inverted uterus to deal with, we could not account for its large size. The surface of the tumor looked fleshy, was rough, abraded and ulcerated, and slight manipulation of it at any point caused a flow of blood. Mucous membrane could not be detected on it. The tumor had somewhat of a doughy feeling, but it was hard to firm pressure.

The previous history of the case, and the signs afforded by the examination, left no doubt as to the diagnosis. The absence of the cervix anteriorly was accounted for as having been occasioned by laceration of the os when the fundus passed through it.

The stump of the inverted uterus occupied almost as high a position within the abdomen as the organ does in its natural position, and the sign so valuable in cases of ordinary inversion, afforded by means of the sound introduced into the bladder and the finger into the rectum, and again into the vagina, could not have been of any value in the case, and this expedient was not employed.

On the 22d day of May, 1871, the second day after menstruation ceased, the patient was placed on her back, low down on a bed, with her limbs supported by each foot resting on a chair, and was profoundly anæsthetized, and with the assistance of Dr. JAMES W. KERR and Mr. McLOUGHLIN, medical student, the uterus was amputated. The chain of the écraseur was placed round the cervix, a short distance below the os, and was tightened very slowly, and fifteen minutes were consumed in severing it. The opening was large, and easily admitted the passage of four fingers at a time into the peritoneal cavity. Previous to the operation, the patient's bowels were moved with an enema, and the bladder was evacuated.

To guard against hemorrhage, after the abscission, I placed a globular sponge saturated with the solution of the persulphate of iron up against and partly into the os, which at once caused it to contract. I removed the sponge on the following day, and the cervix was so

much contracted that it would hardly have admitted the index finger.

It was difficult to place the chain of the écraseur in position. At first I tried to apply the "porte-chaine," which has been added to Chassaignac's instrument.* This however, was soon abandoned, and the chain attached at both ends to the mandrel was introduced with the left hand into the vagina behind the tumor, and after it was caused to ascend some distance it was firmly held in position, and as the cylinder of the instrument was passed upward in front of the tumor, the chain was separated, and soon made to surround the uterus, after which it was not difficult to place it in the desired position.

The patient recovered rapidly without unpleasant symptoms occurring, and I shall not extend this article by a detail of the progress of the case. The patient was placed in bed, on her back, and she remained quiet in this position for two weeks. McMunn's elixir of opium was given at stated intervals for the first few days. No loss of blood followed the operation, and there was very little tympanites or pain. Turpentine stupes applied to the abdomen, and an occasional dose of McMunn's elixir of opium were all that was required for their relief. When she was tired and wakeful, the latter remedy always afforded rest and a good night's sleep. On the day of the operation, in the evening, the urine was passed naturally, and regularly afterward. The bowels were confined till the tenth day, when they were moved naturally.

There was a small vaginal discharge for a short time. During the first week she was fed a liquid diet, principally panada. A more liberal diet was then gradually allowed, and in the middle of the second week she ate solid food. She soon resumed the muriated tincture of iron, and continued to take it for several months. At the end of the third week she sat up in bed; at the end of the fourth she was allowed to be dressed and sit in a chair, and at the end of five weeks she walked from room to room in her house. In the sixth week she was taken out in a carriage.

July 1. Before the expiration of the sixth week after the operation, the patient was able to go up and down stairs without inconvenience, and could walk far and not get fa-

tigued. She had gained weight, and color was being restored to her cheeks.

Thirty-eight days after the last appearance of the catamenia, and thirty-six from the date of the operation, a small sanguineous effusion occurred, preceded by feelings of slight uneasiness in the back, lasting two days, and it is a peculiar and noticeable physiological circumstance, that at the ensuing periods, up till November following—the time of writing this article—this apparent attempt at menstruation recurred. These periods, lasting from two to three days, have not been attended with any disturbance whatever, or interfered with the patient's comfort in any way. The flow has been small, and after the first twenty-four hours, began to disappear.

The mutilation has not changed her femininity, and with the characteristics of her sex retained, her conjugal relations are the same as before it. She is well and happy and has gained many pounds in weight, and is in the full enjoyment of good health. What remains of the cervix is very much contracted, and has a transverse opening in it that will barely admit the point of the index finger.

The entire mass removed weighed one pound avoirdupois, less one quarter ounce, troy, and measured in length six and a half ($6\frac{1}{2}$) inches, in circumference, at the thickest part, twelve (12) inches, and around the neck, eight and a half ($8\frac{1}{2}$) inches. The surface is abraded, and ulcerated. The cavity of the inverted uterus measures two and a quarter ($2\frac{1}{4}$) inches in depth, and one and three-eighths ($1\frac{3}{8}$) inches in the broadest diameter, and is lined with the peritoneal investment, and part of the fallopian tubes broad and ovarian ligaments are within. The fibroid is embedded in the parietes of the uterus—is interstitial—and, from pressure, and distension the tissues covering it are very much attenuated, and round the base, so thin, and firmly adherent, that they can be separated from it only with great difficulty.

The large cavity and the thick uterine walls around it are quite in contrast with inverted uteri, as ordinarily met with in the chronic state. By the contraction of the parietes the cavity ordinarily gradually diminishes, and it is little, if any larger, than it was before the inversion took place. The examination of pathological specimens show that the cavities of inverted uteri, in the chronic state, are not often larger

*See Sims' Uterine Surgery, American Edition, 1869, pp. 79-82.

than a "crow quill."* The illustration represents almost a full side view of the inverted uterus from the front, and the T shaped incision with the flaps turned back shows the fibroid embedded in and surrounded by the uterine tissues. The amputated surface and the opening into the cavity of the inverted uterus, and the attenuated uterine tissues around the fundus, are also represented in the wood-cut. The illustration shows the inverted uterus and fibroid in their natural size.

Fibroids of large size are known to have been found, after death, embedded in the parietes of the uterus, and floating in the abdominal cavity, attached to the fundus by a pedicle, that gave no trouble during life, and were not known to exist till they were found *post mortem*.

Several years ago, I examined the body of a colored woman, who died from cancer of the breast, in whose uterus there were several intra-mural fibroids and a large globular fibrous tumor, floating in the abdomen, attached to the fundus by a pedicle. I first saw the woman only a short time before her death, and, noticing that the abdomen was large and distended with fluid, was led by this circumstance to make the *post mortem*. The uterus was two or three times its natural size, and the interstitial tumors numbered, perhaps, four or five, the largest of which was one and a half or two inches in diameter. The uterus and pediculated tumor were given to a young medical friend, Dr. A. F. PRICE, now assistant surgeon in the U. S. Navy, to be put into alcohol, and from some inadvertency the specimen was allowed to spoil. I regretted this, as the weight and size of the pediculated tumor had not been taken. It was heavy, however, and would probably have measured from twenty to twenty-five inches in circumference.

From notes of the case taken at the time, it is shown that the woman menstruated regularly and naturally, and at the age of forty-five years—one year before her death—the catamenia disappeared; and that she passed through the climacteric period of her life without suffering from any cause connected with the function of menstruation, that she

had been married, and was pregnant three times, and aborted in the early months of each pregnancy; that her occupation was that of a cook, and that she worked regularly at it until eight months before her death; that the tumors existed unrecognized during life; that they caused no suffering or inconvenience, and only prevented pregnancy from continuing to maturity.

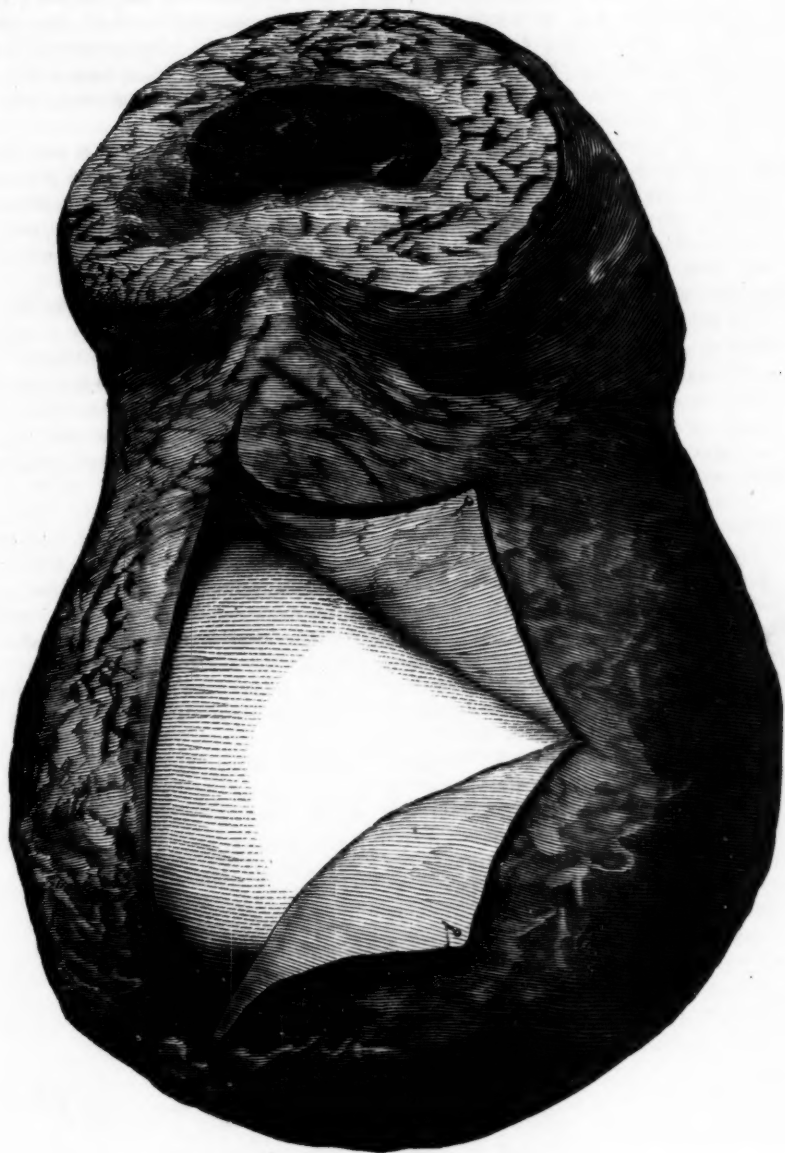
The case just referred to is very illustrative of the fact that these tumors may exist long and not cause enough inconvenience to attract attention, and that the patient may die at a late period of life from some other disease, without their being recognized.

In the case of the patient, Mrs. B., the fibroid appears to have grown in the parietes of the fundus of the uterus, directly on a line with the vertical axis of the organ, and any cause existing that favored inversion would be determined by it. Taking this view of the case, it is probable that had pregnancy not taken place, the inversion would not have occurred. Probably complete involution did not take place after delivery, and the tumor as it grew encroached upon the uterine cavity, and drew the fundus with it. The tumor now acted as a foreign body and irritated the uterus, and as it gradually increased in size, the cavity was still further extended; and the uterus contracting to discharge the tumor, pressed it, with the partly inverted fundus, toward the natural outlet, till finally the bearing-down labor-like pains forced the tumor, enclosed in the parietes of the fundus, through the os. The inversion thus took place *very slowly*, and was developed little by little.

In the absence of such cause, it is more probable that the efforts of the uterus would not have been called into action to expel the fibroid, and that the principal displacement of the uterus that might have occurred, would have been ante- or retroflexion, and that the patient could have gone through life with comparatively little suffering.

On the other hand, with the cause existing, inversion would most likely follow, unless means were used to prevent it; and it is not unreasonable to suppose that such result might have been averted, and the patient spared months of mental agony and physical suffering, and still be in the possession of her womb, if remedies had been timely and judiciously employed.

*Thoughts on Chronic Inversion of the Uterus, especially in reference to Gastrostomy as a substitute for Amputation of the Uterus. By HENRY MILLER, M. D. Richmond and Louisville Medical Journal, April, 1870, p. 378.





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In this case the necessity of a diagnosis seems to have been overlooked, and it points to the importance of paying due attention to the condition of the uterus after delivery, and of not relying upon general indications alone, and of not assuming irregular menstruation, menorrhagia or other disorder of the organ, to be due to functional derangement, at the expense of a careful local examination.

It does not appear that amputation of the uterus is given a place in works on surgery. But few authors make mention of it.

Professor GROSS, who refers to it, says: "When the tumor is hopelessly irreducible, it is not only a source of mechanical inconvenience, but of almost incessant hemorrhage, draining the system of blood, and keeping the woman constantly at death's door. Under such circumstances, as a dernier resort, amputation is occasionally practiced. The operation, however, is generally fatal, the patient dying from shock, hemorrhage, peritonitis, or pyemia. In a case in my hands, some years ago, death occurred in less than forty-eight hours from inflammation; and in another, in which I assisted Professor MILLER, the woman perished from hemorrhage in less than three hours. From the result of these two cases, I should certainly have no desire to repeat the operation."*

Dr. SIMS says: "I would hesitate a long time before removing another inverted uterus." (1)

In Professor MILLER's case, above referred to by Dr. GROSS, amputation was made with a bistoury. (2)

Of the different means that have been employed to amputate the chronic inverted uterus, the ligature and *écraseur* combined is in greater favor than either the ligature, knife or *écraseur* alone. By the use of the ligature and *écraseur* combined, pyemia, which is more apt to follow when the ligature alone is employed, is averted, and hemorrhage, when the knife or *écraseur* is used, is prevented.

This procedure will no doubt afford the results claimed for it; and when the pain that is caused by the ligature, during the twenty-four or forty-eight hours that it should be

allowed to remain, can be borne, it is perhaps the best way to abscise the organ. In other cases, however, I believe the *écraseur* alone, with the subsequent application of the persulphate of iron, as above used, will be, at least, equally as favorable in its results.

It appears that statistics show a lower rate of mortality than other amputations, and capital operations (3), and "there is reason to hope that under more skillful surgery, and improved after-treatment, the mortality will become still less" (4), and that the operation will be given a place in treatises on surgery.

For valuable statistics of the different operations and interesting memoirs and other information on inversion of the uterus, see:

Medico-Chirurgical Transactions, London vol., XXXV. p. 125, *et seq.*

Ibid., vol. LII., p. 179, *et seq.*

Ibid., vol. X., p. 358, *et seq.*

Ibid., vol. XLI., 183 *et seq.*

The Richmond and Louisville Medical Journal, loc., cit., p. 376, *et seq.*

Clinical Memoirs on Diseases of Women, by McClintock, Dublin, 1863, p. 76, *et seq.*

Clinical Notes on Uterine Surgery, by J. MARION SIMS, M.D. (American edition), 1866, p. 123, *et seq.*

Lectures on the Diseases of Women, by CHARLES WEST, M.D. (3d American edition), 1867, pp., 187—202.

On the Diseases of Women, by FLEETWOOD CHURCHILL, M.D., Fifth Edition, Dublin, 1864, pp. 463—484.

The American Journal of the Medical Sciences, July 1856, pp. 127—128; pp. 265—269.

Ibid., July 1858, pp., 13—14; pp. 270—272.

Ibid., Oct. 1860, pp. 313—363.

Ibid., Jan'y, 1866, pp. 149—152.

Ibid., April 1866, pp. 403—404.

Ibid., Oct. 1867, pp. 405—409.

Ibid., Jan. 1868, pp. 91—99.

The American Journal of Obstetrics and Diseases of Women and Children, Aug. 1868, pp., 164—168.

Ibid., Aug. 1869, pp. 207—218.; pp. 354—358.

Transactions of the Obstetrical Society of London, vol. X., pp. 30—37.

Ibid., vol. XI., pp. 174—176.

Ibid., vol. XII., pp. 344—349.

(1) *Clinical Notes on Uterine Surgery, by J. MARION SIMS, M.D. (American edition), 1869, p. 134.

(2) *The Richmond and Louisville Medical Journal*, loc. cit. p. 332.

*A System of Surgery, etc., by SAMUEL D. GROSS, M.D., fourth edition, 1856, vol. 2, p. 841.

(3) *The Richmond and Louisville Medical Journal*, loc. cit., p. 395.

(4) *Ibid.* p. 394.

ECLAMPSIA.

By A. HURD, M. D.

Of Findlay, Ohio.

I desire to report a case of eclampsia, that recently came under my observation, which possibly may be of some interest to the profession at large. More especially do I desire to make your journal the medium, because you solicit rural contributions, and also because I have recently noticed in its pages several articles relating to puerperal convulsions in which the value of venesection as a remedial agent has been learnedly discussed both *pro* and *con*.

Twenty years ago, in the regular profession, there was no respectable practitioner of medicine and surgery who for one moment called in question or doubted the propriety of blood-letting in such a class of cases; and the physician who from *timidity* or *ignorance* failed to give his patient the benefit of such a course of treatment, would have been accused of neglect in the performance of duty, and condemned by his associates in the practice of medicine.

Whence this change in what were once considered the well established principles in our profession, established as the results of careful observation, and the large experience of earnest men, who were learned in our profession, and fully acquainted with the symptoms and pathology of the disease? In my humble opinion popular sentiment had something to do with it. The ridicule of mere pretenders, those dishonest leaders of new schools and founders of new *pathys*, had more to do with it. Some bold, brave, conscientious men withstood the shafts of ridicule, and the assaults of unreasonable popular clamor, and daily the number is increasing, for I notice that some of our best teachers and writers are *carefully* and cautiously recommending the use of the *lancet* in certain cases and conditions of the system. A reaction is taking place. Our science, like others, may move in *cycles*. For in the next decade I expect to see the profession again return to a discriminate, judicious and rational use of blood-letting.

I confess that I am not sufficiently familiar with the comparative statistics as to the results in the treatment of the disease with blood-letting and without, so as to show positively their comparative merits, but I have a vague recollection that under the for-

mer the success was even greater than under the latter. I am fully aware that recently the theory has been started, and is said to be fully confirmed, by testing the urine of pregnant women that the patients who are obnoxious to eclampsia have previously suffered from a peculiar disease of the kidneys—and consequent change in the crasis of the blood, known as *albuminuria*—the result of pressure or otherwise, and that the anemic and changed condition of the blood—both as to quantity and quality, so impresses the nervous centres and disturbs the nervous forces as to predispose to an attack of the disease.

If the conclusions reached are correct, and the theory thoroughly established as a fact in pathology, such a condition would seem to contra-indicate the abstraction of blood, for in such a class of cases, where the condition would necessarily be anemic, the loss of blood to any considerable extent would be followed by bad results and retard the subsequent recovery.

Judicious blood-letting would not to any great extent lessen the quantity of poisoned blood circulating in a given time within the brain, and, therefore, the prostration following copious abstractions of blood would more than counterbalance the doubtful immediate beneficial effects of such a procedure, and we should, therefore, do much more harm than good.

The late Prof. ELLIOTT, in his "Obstetric Clinics," fully endorses the theory of kidney complication, and the consequent toxæmic condition of the blood—conclusions no doubt reached as the result of numerous observations, directed by a clear mind and remarkable talents. Although he does not fully condemn and discard blood letting, still the weight and influence of his teachings and writings would seem to be against it, and that he trusts more to "wet cups, diuretics, chloroform, etc.," than to more energetic interference.

No doubt such a course of treatment would do well to prevent and palliate in cases where from observations the urine was known to be albuminous, and danger was apprehended from the known toxæmic condition of the blood, *preparatory* to labor in city or hospital practice where patients could be daily seen; but it occurs to me that in the country, where you are only called because of the convul-

sions, and that the first time you see your patient you beho'd her in all of the fearful, terrible contortions of a profound attack of eclampsia; that such means would be entirely inadequate to meet the demands of the case. In such a condition of things, to hesitate or doubt might be the death of your patient. Action is demanded. Will you bleed or will you temporize?

I do not believe that the profession is fully convinced of the truth of the urinic or albuminous condition of the blood in such cases. It is known to the profession, that it is no uncommon occurrence to find albumen in the urine of healthy females who are pregnant, and that such pass through labor without convulsions; and on the other hand, according to reports of cases in "Obstetric Clinics," pregnant women whose urine "was loaded with albumen and casts," passed safely through labor without convulsions. If there is any logic in science, a relation between cause and effect ought to lead us to look to some other cause for these manifestations. Is it not found in the tumultuous action of the heart and arteries, and the consequent tension of the vessels within the brain?

In such cases where so important an organ as the brain suffers, it would be far better "to ward off, if possible, than to cure an attack of puerperal convulsions." But when convulsions have occurred, considering their nature, the part effected, and the fear of "fatal effusion and extravasation," as the terrible result, it would seem to call for the most prompt and energetic interference on the part of the attendant to prevent, if possible, such fearful consequences. "Sometimes in a single attack," during the progress and continuance of one convulsion, "the fatal blow is struck," so that consciousness is never recovered. The dark and terrible scene deepens; the stupor becomes more complete, the breathing more laborious, the stertor deeper and louder—all pointing speedily to the "sleep of death."

These results—the effusion and extravasation—can best be prevented by the immediate and free abstraction of blood. By such means you can more quickly subdue the tumultuous, irritable action of the heart and arteries, relieve the severe tension upon the vessels within the brain, and restore that equilibrium in the circulation, which must be established in order to prevent a recurrence and continuation of the attacks.

You perhaps do not bleed to rid the blood of any particular *materies morbi*—THEORETICALLY THERE, or there in fact, but to get the immediate mechanical hydrostatic effect upon the circulation as the result of such a procedure. *Not that blood-letting is remedial in its effects, by virtue of the poisoned elements drawn off—only proportionately to the quantity of blood in circulation—but is remedial by virtue of the effect produced upon the volume of blood distributed to a given organ or part, during a given period of time, by relieving them from congestions, and equalizing the circulation.* "I hold it then to be certain that for some special morbid constitutions, venesection is a potent and life-preserving remedy; that there are many exigencies for which it is not only safe to employ, but unsafe and unpardonable to withhold it. I shall have to return to this subject hereafter, but I may repeat now, in brief terms, that the condition which cries out for and obtains relief so signal and immediate from phlebotomy, may be described as that of great and often sudden engorgement and distension of the vessels that carry black blood, of the systemic veins of the pulmonary artery, and especially of the right chambers of the heart. In this embarrassed condition of the circulation, with so unequal a distribution of blood in the two systems of vessels, it is the veins that require emptying, not the arteries. As the tension of the stretched and almost paralyzed right ventricle is lessened, the hollow muscle again becomes capable of contracting upon and propelling its contents, the clogged lung is set free, the functions of the oppressed BRAIN are eased and relieved, and the balanced play of the heart and lungs is restored. This, it seems to me, is the true philosophy of blood-letting in disease, approved by reason and fortified by experience."*

Now, in the limited experience which I have in the use of other means in the treatment of the disease under consideration, such as veratrum viride, bromide of potassium, chloroform, and other remedies suggested by different observers, I have not been able to obtain such favorable results as reported by others. It is true that *verat. viride* acts quite speedily and exerts a powerful influence over the action of the heart and arteries, but the great objection to its continuous use, as ob-

*Watson's New Edition.

served by me, in often repeated large doses, is its liability to irritate and nauseate the stomach, thereby producing severe and persistent vomiting, and in my hands it has been the case, whether used in the treatment of eclampsia, pneumonia, or febrile and inflammatory diseases. And one constant peculiarity, which I have invariably noticed, is, that when vomiting has been once caused by its action, there is a complete intolerance to its use for a number of hours thereafter, especially in the use of such heroic doses as are sanctioned and recommended by Dr. FERN, in a recent paper published in the *American Journal of Obstetrics*. And although we have not been able—either from the want of correct knowledge used in its application or otherwise—to reach the same results and come to the same conclusions, and notice the same grand, beneficial effects from its use, still, we are willing to confess that the facts given, the cases reported, the successes attending its use, would seem amply sufficient to fully establish a principle in our profession.

It is to be hoped that other observers in the field will fully confirm, establish and elaborate the facts which are so candidly and ably set forth in the paper above referred to. In much smaller doses *verat. viride* is an invaluable drug, but its effects in such doses are not prompt and sure enough to meet effectually the urgent demands of such a terrible disease. And so of bromide of potassium; it may do to depend on it as an adjuvant, but not as the main remedy in combatting the disease. Chloroform, no doubt, is a valuable remedy; but it is not, in controlling the disease and the consequent spasms, invariable in its action. I will give you a case in point:

Last August, the 16th, I was called to see Mrs. C., a farmer's wife, six miles in the country, a healthy, short, heavy-set woman, aged 47, who was about seven months in her tenth pregnancy. She was suffering at the time with pain in the left side, and troubled with a severe cough. Upon inquiry, I found that her bowels were quite regular, and the urine (though I did not test it) was supposed to be normal in quantity and quality. Appetite pretty good, and no fault in digestion. I noticed nothing very unusual or peculiar about the case, only her short, thick neck which was suggestive of *fits*.

Prescribed, *pul. doveri*, with some simple

cough syrup, mustard plaster to side, and gave her instructions to keep her bowels well open, to be patient and wait. I paid no further attention to the case, except to call once or twice, in passing, and make some simple prescription or suggestion, and heard nothing more of the case, till Oct. 31st. I was then called early in the morning, being informed that Mrs. C. was in labor. Reached there, 4 A. M., and, upon inquiry, found that her bowels had moved freely, had "made water frequently," and upon examination found the os well dilated, that the membranes had ruptured, waters passed off, head presenting in the first position, pains strongly expulsive and regular, and every indication of a speedy completion of labor. Within half hour the child was born—a vigorous boy—weighing about 7 pounds. On placing my hand on her abdomen to see if the uterus was well contracted, and to prepare to remove the placenta, I found that the womb contained another child. Labor soon came on, and after three or four strong pains, a little girl was born, also vigorous, weighing about 6½ pounds. The common after-birth to both children, came speedily away, attended by very little hemorrhage. A bandage was applied, and she was placed comfortably in bed, and seemed smart and cheerful. The necessary directions were given, and congratulations tendered, and I returned to town.

About 4 o'clock, P. M., the same day, I was called in great haste, with the startling announcement by messenger that I must come quickly, as Mrs. C. was dying. When I arrived there I found that Mrs. C., about 2 o'clock, 8 hours after an easy and every way natural delivery, without any known disturbing cause, had been attacked with a convulsion, and that she had had three up to the time of my arrival at 4 o'clock, and also that she had remained entirely unconscious since the first convulsion. Just as I entered the room she had another. Being mindful of Dr. FERN'S article on the use of *verat. viride* in such cases, I immediately gave her half drachm dose of Tilden's *fid. ext.*, and repeated the dose in about twenty minutes. In a few moments after vomiting occurred and another convulsion: more *verat. viride*, and another vomiting and another convulsion. (Here I requested that Dr. F. W. FIRMEN, be called as counsel). I now tried chloroform, put her

well under its influence, though in that condition she still had another convulsion. I now determined to bleed—took about ten ounces. She lay unconscious, with heavy breathing, for about one hour and a half, when just as Dr. FIRMIN came in she had another severe convulsion.

After a brief consultation, we concluded to let more blood (as the case looked much like apoplexy), which the Doctor proceeded to do, and drew about sixteen ounces in full stream. I then continued chloroform, and gave her about twenty grains of calomel (in fresh butter, put on the tongue as per ELLIOTT'S directions), with one-half grain morphine; put cold to the head, and ordered mustard to the wrists and ankles, and also fifteen grains bromide potassium every two hours. We left about 1 o'clock, A. M., up to which time she had no more convulsions, though she was unconscious, and her breathing stertorous.

Nov. 1, 9 o'clock, A. M.—Saw her again; learned she had had a slight attack about 4 o'clock, three hours after we left. She was not conscious; breathing not so heavy; had urinated freely; bowels had not moved; gave more calomel; gave small quantity of milk as nourishment, and otherwise continue same directions.

Nov. 2, 10 o'clock A. M.—Much improved bowels have moved freely; has passed water; is conscious, though somewhat confused; wants to know why her arms are sore, and was entirely unaware of what had been done, or what had transpired since the first attack; discontinued the bromide potass.; increased the milk and ordered perfect quiet.

Nov. 3.—Great improvement; perfectly rational; free from pain; has appetite; wants children to the breasts; has pretty free secretion of milk. Let her have a more generous diet, and order bark wine and iron.

Nov. 4.—Still improving; continue medicine and dismiss the case.

Nov. 15. At this date she is doing her work, attending to the babies, and has had as good getting up as usual with her former confinements.

The only thing about this case is the number of convulsions, the amount of depletion, the rapid recovery, and the length of time supervening between the time of a natural delivery and the occurrence of the convulsions. The other points in the case, treatment, etc., tell their own story.

CHLORAL HYDRATE.

By T. CURTIS SMITH, M. D.,

Of Middleport, Ohio.

This therapeutic agent was first discovered by LIEBIG about 32 years ago, but did not attract attention from the profession till after it was brought to its notice by OTTO LIEBREICH, of Berlin, on June 2d, 1869. Since that date its fame as an anæsthetic, but especially as an hypnotic, has spread to every part of the world where civilization has gained a foothold. Like many other new remedies, it has been "lauded to the sky" by many contributors to professional periodicals; while, on the other hand, an occasional author has uttered a warning of danger arising from its too liberal use.

Your reporter thinks it is now settling to a permanent place among valuable therapeutic agents; that it will not accomplish all that has been claimed for it; but that it will accomplish enough good results to take rank second only to opium as an hypnotic and anæsthetic. In some respects it is far superior to opium or its alkaloids; while in other points of value, it seems to me to be far inferior to it, as will be stated further on.

Chloral hydrate is the result of the action of chlorine on alcohol, the latter giving up five of its six equivalents of hydrogen to the former, producing five equivalents of hydrochloric acid, and combines in their place with three equivalents of chlorine, thus forming anhydrous chloral. This decomposes very readily on standing, but if combined with an equal weight of water, it forms the crystalline hydrate of chloral, which is a more stable compound and the one used for medicinal purposes.* It is soluble in its own weight of water, less soluble in alcohol and ether, and volatilizes slowly in the air. When heat is applied, the hydrate is distilled over without decomposition.† Its formula is $C_2H_5Cl_3O$. Its odor and taste are pungent, though an aqueous solution is not especially unpleasant to the taste, but leaves an acrid sensation at the fauces.

When an alkali is added to a solution of chloral hydrate (as caustic soda or potassa), chloroform is evolved, and a formate of soda or potassa—as the case may be—is formed.

* *Half-Yearly Compendium of Medical Science*, for July, 1870, p. 41.

† *American Journal Medical Science*, for Oct. 1869, p. 533.

B. W. RICHARDSON, of London,† was the first to clearly demonstrate that this change took place in the blood, in the living subject, though LEIBREICH had inferred, from analogy, that such would be the case prior to RICHARDSON'S experiments, and on this ground the former was led to try its effects, first on animals, and afterward on the human subject. The physiological effects of chloral hydrate are, therefore, in reality those that would be produced by chloroform gradually evolved in the circulating fluid. The latter agent, in small quantities, retards molecular metamorphosis; but when carried to a sufficient dose, entirely checks the physical process of organic life, and puts an end to it. Chloral hydrate acts in the same manner, though much slower than chloroform, for the reason that the blood is not sufficiently alkaline to cause chloroform to be rapidly set free; hence the enormous doses that are sometimes given, without a fatal result following.

After the administration of a full dose of chlor. hydr., the temperature of the body falls from one to three degrees, and in poisonous doses, much lower—8 to 10 degrees. This difference in temperature alone is sufficient to prove that it retards metamorphosis. The respiration becomes slower, and the blood less than normally oxygenized. The pulse for a time is slightly excited in frequency, then becomes slower and fuller than natural. There is no well-marked stage of excitement preceding its hypnotic effect, as there is with chloroform, which is much in favor of this remedy, and may be accounted for by the slow and even production of the latter agent after the absorption of the chloral.

*As an anæsthetic, it is far inferior to chloroform or sulp. ether, the real stage of anæsthesia being short and imperfect. As an anodyne it is inferior to opium, though it possesses properties of this character in a marked degree, and superior to those of hyoscyamus, cannabis ind. or lactucarium. As a hypnotic it is a very valuable agent, though in my hands it has not been more certain to produce hypnosis than opium; which can I think, be accounted for by an excess of acid in the stomach, or the blood being less than normally alkaline. Latterly I have learned to secure its hypnotic effects more certainly by using an alkali, about the time chloral hydrate

is given, in those cases where it does not act well without it. This has the effect of producing more free evolution of chloroform—its active principle—during and after its absorption.

In the post mortems, in animals and the human subject, the blood has been found to be very feebly coagulable or fluid. The same condition attains after death by the administration of chloroform. This may be accounted for by the solvent power of chloroform on the fibrin of the blood, which is its active coagulating principle.

The length of time that its hypnotic power prevails depends on the dose, a large portion producing much longer sleep than a small one. The sleep is not so profound as to prevent the patient, as a rule, from being easily awakened. With the majority of persons there is no ill sequences following its administration, as vertigo, nausea, constipation, pruriency, general languor, diminished secretion, etc., which often follow the use of opium or its alkaloids. But in some instances the vertigo, cephalalgia, nausea, temporary want of co-ordinating power, etc., are very distressing, though they may be readily relieved by brom. potass. The sleep, therefore, produced by this agent, as a rule, approaches more nearly that of health than when produced by opium.

One great advantage it possesses over opium is the fact that its long continued use does not require an increase of the dose, nor establish a morbid habit of requiring its continuance. After regular administration for months, the dose and effects will be the same as in the first instance, and when it is no longer needed, it can be dispensed with by the patient, without any trouble or further desire for its use, or more than a very temporary restlessness at most.

Dr. J. B. ANDREWS, of the New York State Lunatic Asylum, speaking from an experience of 370 cases, says: "The average length of time of administration has been to the men, 39 days; to the women, 43 days. In a case of melancholia, marked by the most distressing delusions and wakefulness, it was given in 20 grain doses for 257 nights as a hypnotic, without losing its effect, and with the happy result of securing refreshing sleep. The patient recovered. In this instance, as in others,

**American Journal of Medical Science* for October, 1871, p. 515—taken from the *American Journal of Intoxication* for July, 1871.

†*Loc. cit.*

the value of the remedy was tested by occasionally intermitting the dose. Sixty grains were administered during an attack of mania for 195 nights in succession."

He expresses the following summary of conclusions regarding its advantages, viz.:

"It is a hypnotic which seldom fails to produce sleep, which usually lasts from four to eight hours.

"The sleep is natural, and one from which the patient can easily be aroused.

"It is more generally tolerated by the stomach than other sedatives.

"It does not constipate the bowels or disturb the secretions.

"It does not injuriously affect the appetite.

"It rarely produces headache, or leaves unpleasant effects.

"It does not lose its power by repetition.

*** When the necessity for its use has ceased, it often, for the first time, becomes disagreeable to the patient.

"Thus far we have met with no case where its administration has induced the habit of its use, which is one of the great dangers of opium, cannabis, etc.

"It allays muscular spasm and rigidity.

"No ill effects have been experienced in its use in cases of disease of the brain, * * or from its use in the reduction of the pulse or of the temperature.

"In cases of the opium habit, it has proved a valuable remedy to secure quiet and sleep, and allay nervous irritation, until the system has rallied from the depressing influence of the former drug. In insanity, it is particularly useful, to quiet restlessness and muscular activity."

The ill effects observed by him, are the same as those mentioned in this paper, with the addition of its effects sometimes being so rapid as to alarm the friends of the patient. Prof. N. R. SMITH, of Baltimore, Md., relates several cases (four), in which erysipelatous inflammation of the fingers, with ulceration around the nails, and desquamation of the cuticle, followed the use of the remedy.

But the histories of these cases do not seem to be sufficiently complete to prove positively that the remedy caused the disease in question. The same writer relates three deaths from toxemia, produced by chloral hydrate.

† Ibid.

† Boston Med. and Surg. Journal, July 29, 1871.

† We think our friend Mena Ricord would say it was specific disease.

I think we may easily understand how this agent can produce serious mischief, from the fact of the great solvent power it has over the blood elements, and by its causing, as all narcotics do, imperfect respiration, and, hence, impurity of the vital fluid from retained carbon, etc. Like all our valuable remedies, it is not without its dangers, some of which are serious. Dr. H. W. FULLER, of St. George's Hospital relates a case that proved fatal, the dose being 30 grains. RICHARDSON† mentions two fatal cases from its use. The number of fatal cases from its use are not few, if the cases given in our journals can be relied on, and in a few instances from a comparatively small dose. We believe it not to be a safe remedy in cases where there is great dyspnea from pulmonary disease or thoracic aneurism; but if used with due precaution, may be considered a safe remedy in most cases demanding a hypnotic, anodyne, or for the relief of muscular rigidity and spasm.

The diseases and conditions in which this agent is applicable are numerous, but its greatest value is as a hypnotic, and is in this respect in most instances superior to opium. In parturition, it is an agent of great value for the relief of pain or to relax a rigid os or perineum. Especially is it useful in those cases where the pain is peculiarly distressing, with but feeble contraction of the uterus and but slight dilatation of the os. During the first and second stages of labor the pain can be greatly diminished or entirely destroyed, without affecting the contractile power of the organ, and labor is often expedited by completing the relaxation necessary. But during the third stage and for a few days after it, I can hardly deem it a proper remedy, for the reason that it allows or causes too great relaxation of the uterus, thus favoring hemorrhage, which would be difficult to control while the relaxing power of the chloral should last. Now as the effect of doses given during the second stage, must continue into the third, it follows that this relaxation continues, and it becomes the duty of the accoucheur to attend more closely than usual to the contraction of the uterus and the quantity of the discharge that is going on.

It has, two or three days after labor, been followed by dangerous hemorrhage, and must

† Ranking's Abstract for July, 1871, p. 113.

† Ranking's Abstract for July, 1871, p. 126.

be used under such circumstances with great care, if at all. In pertussis and coughs it is a highly beneficial agent, given at bed time, securing the patient good sleep over the night, but during the day, if given in doses large enough to control the cough, its hypnotic power proves objectionable. For pleuritis, pleurodynia, gastralgia, colic, and very painful diseases, I have not found it equal to opium or its alkaloids, but it is very admissible where opium is followed by ill consequences.

In strangury,* intestinal stricture and spasmodic maladies generally, I deem it a highly valuable agent. I cannot, however, speak highly of its value in the convulsions of children, having used it but a few times, and then observing somewhat dangerous symptoms following it. In puerperal convulsions, it is one of the weapons now often used with great advantage, but can hardly be applicable to cases requiring depletion, until venesection or similar measures have preceded it.

In cases of great restlessness, with inability to sleep, and in very many cases of insanity, it is no doubt one of our most certain and effectual remedies. Many reports from the medical officers of asylums for the insane speak loudly in its praise as an hypnotic, by securing regular sleep with this agent, and thus overcoming the morbid vigilance so characteristic of many of these cases, the patient is allowed time for recuperation; the excess of waste caused by want of sleep and constant movement, has been overcome in the sleep produced by the agent, and time granted for repair to take place. Besides this advantage, it is stated that the patients all sleep under its use, instead of many of them making night hideous with their insane jargon and screams.

Another field for chloral hydrate, is in the treatment of tetanus. Scarcely a journal now appears but that one or more cases of tetanus, treated by this agent, is related by some one giving his experience in its use. Dr. D. W. YANDELL, in the *American Practitioner*, states: "That chloroform, up to this time, has yielded the largest percentage of cures in acute tetanus." If this is true, and knowing the mode of action of chlor. hydrate, we may infer that it too would be a highly valuable agent in that fearful disease. From my own experience I can say nothing, not having treated a case with it.

It is only within the last eighteen months that chloral has been freely used in tetanus. I have been able, from all the journals at my command, to find reports of seventy cases. Of this number thirty-five recovered, and twenty-five died. If this can be taken as a standard of mortality, under the exclusive use of chloral, it is not a bad showing; as in addition to this, nearly all were more or less benefitted by its use. But it is very probable that the large majority of fatal cases are never reported for publication. This being the case, it is quite probable that a true statistical showing would not enhance the claims of chloral in this disease.

This agent is now highly spoken of by some authorities as an antidote for strychnia. It is well known that chloroform is one of our best agents to counteract its poisonous effects. Chloral, largely given, would act in precisely the same manner, though somewhat slower. The dose of chloral is from 5 to 60 grs. It is better to commence with a small dose at first, than to take, what seems to me, a fearful risk of large doses without knowing how the patient will bear it. I usually give 8 to 10 grs. every 20 to 30 minutes, until its effects are apparent. Generally two doses of this size produce the hypnotic effect. From 15 to 20 grains will, or has for me, quite generally, been all that was needed.

This plan of giving sometimes necessitates repetition through the night; but I deem this the much safer plan of administration. Formerly I gave half-drachm doses, and repeated them when they failed to act promptly; but in two instances, I observed serious symptoms, which caused me to desist from such practice. In one case I gave two drachms before the patient slept. No ill effects followed, but I should fear to repeat such hasty practice. Dr. P. WILLIAMS† relates a case that took about 600 grains at one dose, without fatal effects. Dr. W. HOLBROOK‡ relates the case of a lady who took over 400 grains, after which she lived 15 hours, and died comatose.

A number of cases are related, in which from two to three hundred grains have been taken without proving fatal, though in most instances they caused serious symptoms. But this large dosing does not warrant us in taking the risk of using more than the minimum dose

* See case in *Compendium of Medical Science* for July, 1871, page 230.

† See *Hankings' Abstract*, for Jan. 1871, p. 176.

‡ *Baltimore Med. Journal* for Feb., 1871.

§ *Buffalo Medical Journal* for Feb., 1871.

that will produce the desired result. Very serious symptoms have sometimes been caused by 15 grain doses, but as a rule, this would not produce ill effects. I wish to repeat that small doses rapidly repeated are safer than to overwhelm the system at once.

The acrid taste of the remedy should be disguised as much as possible, though it is not seriously unpleasant. For this purpose syr. simp. with aque menthae pip. aque cinnamomi, or syr. aurantii; in fact, any of the aromatics, with syrup, disguise the taste very well. So also does mucilage, with an aromatic. A bit of orange peel, or cinnamon, chewed before taking it, has an equally good effect in covering the taste of this agent. Strong aqueous solutions are quite disagreeable to the taste, and acrid to the fauces, and should be avoided.

Chloral hydrate should not stand long in solution before using, as decomposition soon takes place, modifying, changing or destroying entirely its valuable properties, or even rendering it dangerous for use. As to the precise character of the change that occurs during its decomposition, I am not prepared to speak, nor have I observed any statement of the nature of the chemical change that occurs by long standing, as given by any writer on the subject, though many speak of it, and some have mentioned ill effects resulting from it.

HOSPITAL REPORTS.

ALBANY HOSPITAL.

Surgical Clinic by Prof. J. H. ARMY.

[REPORTED BY T. D. CROTHERS, M. D.]

Carcinoma.

This lady is 40 years old; is married, and has children, but never nursed them on the breast affected. Her health was good up to six years ago, when she noticed the left breast was enlarging; this continued slowly until a year ago, when it began to increase more rapidly. Since that time it has attained two-thirds its present size. It is a painless, lobulated tumor, becoming smaller at the menstrual periods, and enlarging after. There is no discoloration; some parts feel soft, others harder to the touch; it measures eighteen inches at its largest circumference; its weight causes a dragging, and quite painful sensation. This is a cystic and fibrinous carcinoma, which

will eventually ulcerate and involve the adjacent parts.

I advise immediate excision. It may remove the disease completely; at least it will delay its progress, and the patient may be comfortable for years. In my experience I have never found the use of the knife in cancerous affections of the breast to hasten the final issue; it affords an additional chance for life, and gives nature more power to resist the disease.

Crushed Hand.

This man's hand was crushed in a husking machine, and I amputated at the carpo-metacarpal articulation. The thumb was uninjured. The flaps of healthy skin were abundant to cover the parts, but a few days after, it sloughed away. The injury and shock had been so severe that vitality was gone. The sloughing continues, and the bones are laid bare; necrosis may follow; poultices and carbolic acid lotions are used. Healthy granulations are springing up in the deep tissues, and if inflammation is not renewed, the remaining parts of the hand may be preserved. In this case much will depend upon the general health of the patient.

Inflammation of the Knee Joint.

This man (a farmer) was well up to six years ago, when after cleaning out a deep well, his left knee began to swell and became painful. Soon after an ulcer began on the leg below, and continued until a few months ago; then his knee became enlarged and very painful. The circulation in this leg is weaker than in the other. Inflammation has been going on; a thickening of the ligaments, and erosion of the cartilages are apparent. You notice a deep depression below the patella; it is caused by the falling back of the bones of the leg; the former riding over, and projecting as you see. I shall put the leg in a splint to support the joint.

Here has been periostitis, otitis and synovial inflammation, which will probably end in ankylosis. The only treatment besides support to the bones, is to lessen the inflammation and give perfect rest to the joint. Tonics, iron and quinine, cod-liver oil, iodide of potassium, should be given in such affections of the joints. These lesions depend on weakened vital powers and a scrofulous taint in the system.

Dislocation of Patella.

This boy injured himself by a fall, six months ago, and dislocation of the patella followed. The surfaces of the joint are more roughened, and, I think, are changing in form. I can reduce this readily, but the muscles of the leg throw it out again. This limb must be confined in a splint, and have perfect rest for a few weeks, then a knee-cap or supporter should be bound over it and worn a long time. I think he will recover.

Tumor of the Thigh.

This man, upon whom I operated a few weeks ago, for a benign recurrent tumor of the thigh, is much improved. A week after the operation, the parts sloughed away, and I thought gangrene would follow. But it was checked by tonic treatment and applications of carbolic acid. A few days after, I grafted in several sections of healthy skin, from which granulation have sprung up, and it looks favorable for a rapid recovery.

Bursal Dropsy.

This man had a swelling of the knee joint four years ago, which continued some months, then disappeared. It reappeared, and has been increasing ever since. Both knees are affected, the right one being the larger and more painful. The swelling is not uniform over the joint. Pressure indicates fluid. This fluid does not seem to be in the joint, nor to communicate with it. Moving the joint, a rubbing sensation follows, as if roughened surfaces were brought together. Lymph has been thrown out around these bursæ, or closed sacs, and this uneven swelling is caused by their distension. If this is neglected it may implicate the joint. The treatment is blistering and mercurial ointment over the joint. I do not think it safe to inject stimulating substances into the joint or bursæ. This practice, once so common, is now seldom used. Iodide of potassium internally, with the proto-iodide of iron, etc., is the best remedy. There seems to be a scrofulous taint in this patient, and it will be some time before he recovers.

Fracture of the Skull.

This patient was brought to this clinic three weeks ago to-day, with a fracture of the base of the skull. You will remember that the brain substance was oozing from the right ear. The gray and white neurin was clearly distinguished, and passed round to the class. The case was very critical, with little probability of his living over twenty-four hours. He had fallen sixteen feet, striking his head on the corner of a strong tool-chest. The fracture was evidently extensive, traversing the petrous bone, lacerating the membranes, and opening a fissure sufficient for the brain substance to escape. There was hemorrhage from the ear, of both arterial and venous blood; the petrous or other sinuses must have been lacerated. He was in a state of profound coma, the pupils dilated, the pulse was slow and irregular, the surface cold, and every indication of a speedy death from collapse. Alcohol and water applications were made to the head, and enemata of soap and water, with spirits of turpentine, were administered. These symptoms gradually improved for the next forty-eight hours, but a complete paralysis of one side of the body and a loss of consciousness remained. The case continued to improve favorably until the eighth day, when erysipelas came on, and spread over the face and head. This, I think, aided materially in

diverting or combatting cerebral inflammation. The erysipelas has disappeared, and the paralysis is improved, except that of the facial nerve, which may be permanent, as this was evidently injured in the aqueductus fallopil foramen. This man is now able to walk about, and eats well; his mental power is not restored. I will allow him to go to his home, and shall watch the case, and bring it before you again, for it is a remarkable result.

Fistula in Ano.

Here is a case of complete fistula in ano, a sinus with two openings, one in the rectum, the other on the surface of the body. This is a common form of the disease. This papula, or wart-like excrescence, is the external opening. A few drops of urine escape from this opening when he micturates; so this should be called vesico rectal fistula. This arises from an abscess which has burrowed its way externally, penetrating the coats of the bladder. The opening must be small, as only a few drops of urine are ever passed at a time; fecal matter and air passes occasionally. The pain is of a peculiar aggravating character, and a sensation of dragging is always present. With the finger in the rectum, I feel a hard callous tissue, along the line of the sinus. It is often difficult to determine whether the fistula is complete; a little coloring matter injected into the opening, while your finger is in the rectum, will detect it by the stain.

An operation will furnish the only possible means of relief in this case. The sinus is straight; I shall carry a probe bistoury up through it to the rectum, resting it against the finger nail, and draw them both out together, cutting all between the finger and the knife. A pledget of lint saturated in carbolic acid will comprise the dressing. I have found these operations to be more painful and depressing than similar operations in other parts of the body.

Cancer of the Penis.

This man is a clergymen, 67 years old, of vigorous health, and has had this warty growth on the penis for many years. He first noticed it as an excrescence on the prepuce; this he destroyed with caustic. A similar one formed near the margin of the glans; it was very irritable, and spread over the glans; this ulcerated, and a fungoid growth sprouted up, involving the entire glans penis. A traveling cancer doctor applied a caustic plaster which destroyed it. It soon returned, growing rapidly to its present size, and remaining so for some years. Always painful, and occasionally bleeding, it renders him very uncomfortable. Lately it is more painful, and he desires to have it removed. He does not wish any anæsthetic, so I will amputate at once. I pass this circular silver clamp around the penis, retracting the skin, compressing the superficial arteries, and deadening the sensibility, and also as a guide for the knife; then, with

one sweep of the knife, I sever this diseased mass. He has suffered but little pain by this operation. The inguinal glands are not involved, and I have strong hopes he may recover, although the disease is liable to return.

Wound of the Temporal Artery.

This man was brought here by Dr. MARSH. He fell on an adze, producing a jagged wound in the temporal region. He dressed it himself; five days after he called Dr. Marsh, who tried pressure, and succeeded. Erysipelas set in, and bleeding came on again, and has continued at intervals for two weeks. The wound has become a phagedenic ulcer with fungus growths and is spreading. The temporal artery has been tied; pressure and all the usual styptics have been used; the erysipelas is going away, but the wound looks bad and the man's health is declining. Perfect rest and a strong nutritious diet, with careful dressing of the wound. If this does not succeed, I shall tie the carotid artery. Per-sulphate of iron does not act well as a styptic in this case, it fuses and burns rather than astringes. I advise to-day tannin and glycerine.

MEDICAL SOCIETIES.

ARKANSAS STATE MEDICAL ASSOCIATION.

The Association met at Little Rock, Nov. 5, Dr. P. C. HOOPER in the chair.

In his opening remarks he said:

Considering the peculiar character of the services rendered by the physician, and the peremptory manner in which his time and skill may be demanded, it becomes a subject of proper inquiry whether some legislation would not be justifiable, looking toward securing the payment of his fees. He frequently cannot hesitate to think even of this matter when called upon. There are influences hourly moving him, "that spring from nobler motives than a fee." But devoting his whole life and energies to the well-being and health and life of others, it is but scant justice that he should be protected in the laboriously earned wages for his services. This might be done by a reservation in exemption laws, and an elevation of these indebtednesses in the classification of the debts of decedents. Thus, gentlemen, have I endeavored to throw out some hints and suggestions to assist us in the right accomplishment of the laudable objects of this association.

If in anything I have said I have succeeded in directing attention to subjects of importance in our consultations, I have accomplished my purpose. I may be permitted, in conclusion, to indulge not only the hope but the confidence that our deliberations will be harmonious and sincere, and that when

we return to our active duties each one of us can say he "has been at a feast and stolen some of the scraps." We may congratulate ourselves that this society is now on a firm basis. Let us each labor to make it permanent, that thus we may assist to make our profession respected and honorable—to grow in scientific attainments, to cement the bonds of friendship and mutual esteem, and so, manfully and honestly, do our part in the great work we have taken upon ourselves.

L. Augspath, D. D. S., sent in an interdental splint, and, on motion, he was invited to attend and explain it. The reading of the minutes was dispensed with. A discussion followed on the mode of voting, and the composition of the association.

Dr. Augspath was then introduced by Dr. Hooper, and an exhaustive explanation of his invention made, the subject being a youth of sixteen years. A vote of thanks was taken, for the gift of the instrument and the doctor's remarks.

The committee of medical ethics reported, and it was adopted.

The report of the Committee on Climatology, through Dr. Lawrence, its chairman, was next read by Dr. P. O. Hooper.

It was referred to the Committee on Publication.

The election of officers for the ensuing year came next, resulting as follows:

Dr. J. M. Holcombe, president; O. A. Hobson, J. F. Davies and W. W. Bailey, vice presidents; E. V. Deuell and Ed. Cross, recording secretaries; C. Watkins, corresponding secretary; J. B. Bond, treasurer.

The session adjourned until 2:30 P. M.

AFTERNOON SESSION.

The body was called to order by Dr. Hooper, R. G. Jennings acting as secretary *pro tem*.

The president elect, J. M. Holcombe, was introduced to his chair.

The Committee on Scientific Communications reported addresses on different subjects. They were:

1. Malarial Hæmaturia.
2. Influenza.
3. Cholera, by Dr. Du Val.
4. Inflammation of the Knee Joint, by W. H. Hawkins.
5. A Sanitary Survey of Little Rock, R. G. Jennings.

6. Malarial Hæmaturia, J. M. Holcombe.

The first four were read and received.

The Committee on Medical Ethics made a report in the matters of Dr. G. W. Lawrence, and a question anent eclecticism. They reported that Dr. Lawrence was, and is a member of the American Medical Association, also of this body, and the circular in question has been indorsed by the first named body; and after due and careful investigation of the circular, they can find nothing therein in contravention of the true spirit of medical ethics, or in any wise derogatory to the dignity of the regular profession, and no

censure thereto can or should attach to the cultivated and distinguished author.

The committee answered the question "can an "eclectic" physician, under the constitution of the State Medical Association, be ac-

cepted by a medical society as a member?" by saying that the regular profession recognized no physician as orthodox who practiced "eclecticism."

Adjourned.

EDITORIAL DEPARTMENT.

PERISCOPE.

On Wines.

The *British Medical Journal* says: The French Academy of Medicine has devoted itself during two sittings in this month to the discussion of the question of the use of wines and spirits from the medical point of view. M. BERGERON has reported in the name of a commission specially appointed, and the Academy, after debating on their very able report, has determined to secure for it a wide popular circulation. The Academy takes precisely the view which we have taken on former occasions in considering this question. It demonstrates at great length that it is by quitting the use of the cheap light wines of the country, and by adopting the dangerous, seductive, and powerful stimulants, such as cassis, petit me le, and cider and brandy, that the French population is declining into drunkenness. In our own country the place of these drinks among the working classes is taken by gin, rum, and strong beer.

A great and beneficial change has already been evoked in the habits of our upper and middle classes by the more extended introduction of a variety of light wines of varied and unimpeachable dietetic value. It seems to be the tolerably unanimous opinion of medical practitioners of this day, that the existing type of diseases is one of prostration and debility, and that the most successful basis of treatment is by the tonic and restorative methods. Thus, in hospital no less than in private practice, the prescription of stimulants has taken a constantly increasing development.

The reduction of the wine duties has been a great boon here, as not only has it had the effect of doubling the consumption of wine within the short space of ten years, but it has made light wine—what it should undoubtedly be—an article of daily and ordinary consumption, and far less liable to be taken in excess than when wine was a highly stimulating and costly luxury. At the present time, the facilities for obtaining cheap and wholesome wines and other stimulants, bearing the guarantee of large and respectable dealers in almost every town and village, is an advantage which deserves to be kept in view.

Cheap wine has no doubt a certain amount

of prejudice yet to overcome, and the medical man may do much in assisting to dispel this. Cheapness in wine does not necessarily argue a deficiency in stimulating and nourishing qualities, still less unwholesomeness. The fact is, and it is important that this should be borne in mind, that the cheap wines of the present day were only a few years ago, though identical in quality and description, sold at prices very nearly double those of the present time. How this has been brought about by increased supplies, and the opening up of new districts and countries, it would not be difficult to show. Suffice it to say that, of the three principal wine-producing countries, viz.: Spain, Portugal, and France, our home consumption has increased during the last ten years from 5,877,506 gallons in 1860, to 13,373,725 gallons in 1870, the quantity of wines from Spain alone being 6,269,325 gallons in 1870, against 2,975,769 gallons in 1860.

In our issue of the 7th January last we touched upon the article sherry, and drew attention to the important place occupied by Spain as a wine-producing country. Since that time we have continued to use opportunities of testing and comparing the relative qualities and prices of various sherries offered for sale, and have been especially struck by some light, delicate, pale sherries obtained from the Messrs. W. & A. Gilbey, of Oxford street. We think it due to the commercial enterprise and a fair recognition of the undoubted benefit which this firm has conferred upon medical patients in the introduction of sound, wholesome wines at moderate prices, to say that some of these sherries approach nearer to our idea of what a good, generous, stimulating wine should be, than anything we have seen for some time past, while the price places them within the reach of all when required for medicinal and dietetic purposes. We refer to this firm, now the largest in the trade, in order to illustrate the facts as to the facilities for obtaining cheap wines now as compared with only a few years ago, for it is certainly within our recollection when wines such as these could not be obtained under double the price.

Advantages of Hypodermic Injections.

Dr. E. BORCK says in the *Medical Archives*. The advantages claimed for hypodermic medi-

cation may be briefly enumerated as follows:
1st. Promptitude of action—not unfrequently a most important object.

2. Greater certainty and exactness of administration. There is no danger of a portion being ejected, commingled with the saliva, or the entire rejection of the medicine, as when given in the ordinary method by the mouth.

3. A saving of the drug; but one-third to one-half, or even less, of the ordinary dose being required.

4. The facility by which medicines can be administered by this method, when they could not by the mouth; as in tetanus, coma, delirium, etc.

The remedies thus far generally used by hypodermic injection have been narcotics to allay pain, and in the treatment of neuralgia and rheumatism, or to induce rapid quiet, as in mania a pota; quinine, in fevers; strychnia, in paralysis; the chloride and bichloride of mercury, in syphilis (the latter extensively by LEWIN, of Berlin, whose success has become renowned of late); argenti nitras, as a counter-irritant; ergotin, in affections of the womb, by Dr. SWIDERSKIO, of Posen; and belladonna, thus administered in opium poison, has proven invaluable.

I frequently use cannabis indica hypodermically in dysmenorrhœa (from 10 to 30 drops of fl. ext.), and have met with no other unpleasant result than that in a few cases of intoxication. Could not other medicines be thus employed in the treatment of diseases? A wide field for investigation is here before us. How would it do with emetics or cathartics, in certain cases? For instance, in pseudo-membranous croup, would the injection of the fluid extract of ipecac or of tartar emetic be as prompt and potent as when administered by the mouth? Or, in a case where a hard substance is lodged in the œsophagus, which we cannot extract and dare not push into the stomach, in which to give an emetic by the mouth would of course be impossible, could emesis thus be produced? Or in obstinate constipation, where all medicines by the stomach are rejected and enemata cannot be retained, could catharsis thus be promoted?

I have had no chance of trying emetics hypodermically with young children, as I should certainly do did opportunity afford, but will give the case of an adult, in which I injected tartar emetic, not only without any bad consequences but with the happiest result.

It became my painful duty to attend, during several paroxysms of delirium tremens, Dr. P. B., a stout, muscular man, accustomed to strong drinks, and then using morphia himself. In one of his paroxysms, in which four or five men could not keep him in bed, although he had taken morphia, the quantity I could not learn, I nevertheless injected one grain of morphia at once into the thigh, and within ten minutes he went to sleep and slept

all night. He felt very sick next morning, but with a few days' rest had quite recovered, and promised to drink no more, feeling assured that his continued excesses would kill him. But a few weeks later I was again called to attend him for a greater debauch than before. I found him in bed almost motionless, with tongue and mouth very dry, the former coated and like a file, skin dry, eyes dry, fixed and dilated; he had had no evacuation and had not passed his urine; all the secretions were arrested, and he was evidently in great distress. He seemed almost in *articulo mortis*, but retained sufficient consciousness, pointing to his abdomen, to mutter, "Start my secretions, or I die!" His friends were in great alarm, and one, who saw me before using the syringe in his case, asked me whether I could not save him again with that needle. I could not learn whether he had taken any opium, but thought, both from his condition and knowing it to be his custom, that he had, and afterward learned from him that he had, but he did not know how much. In his former attacks he had always been delirious and noisy; now, in the condition described. What could be done? I felt satisfied that nothing could save him unless his secretions were again aroused; an emetic, possibly, would relieve him. Knowing that tartar emetic had been administered hypodermically, I dissolved one grain in water and injected it in right hypochondriac region, and remained at his bedside watching the result, really expecting him to die; but within seven minutes he began to vomit, and ejected a large quantity of whisky-smelling fluid, with some eatables, and continued vomiting and retching for some time. He also passed a little urine, and his bowels were moved—first, of some solid matter, and then large watery evacuations; perspiration fairly poured off him and he became very weak, with pulse quick and feeble. I gave him some chicken tea and brandy, and was obliged to resort to some calomel and opium to quiet the retching, after which he went to sleep, and in a few days was about again. He said he could feel a little soreness where the puncture was made. In this case I do not think an emetic administered by the mouth, or anything else, would have produced such prompt and good results.

The Cholera in New York.

Recently in New York, an important report from the Sanitary Committee of the Board of Health, with reference to the approach of the cholera, was laid before that body. The committee seeks neither to exaggerate nor to underrate the gravity of the situation, but desire to avail themselves of every means at their command, if possible, to prevent its extension.

To that end, they recommend a thorough cleansing of the streets and wharves, an application of disinfectants to tenements and

sailors' boarding houses, and the dispersion of cellar populations to more wholesome quarters. They also urge a reissue of a circular to officers and agents of all vessels conveying emigrants from the northern parts of Europe, enforcing the necessity of cleanliness, prompt isolation, and treatment of all cases of diarrhoea, together with the free use of proper disinfectants to soiled clothing, etc. All classes of citizens here, at home, meanwhile, should co-operate for the common good.

The committee also say: "The medical history of the military posts in New York shows that cholera, yellow fever, and kindred diseases have been brought within the city limits by the recruits taken from the vagrant population of other cities. The refusal of the Secretary of War to require returns to be made to the department of the contagious and infectious diseases occurring among troops at posts within the city limits, leaves the board powerless to protect the city against the introduction of cholera, or other contagious, infectious, or pestilential diseases, through that channel."

Reviews and Book Notices.

BOOK NOTICES.

Essential of the Principles and Practice of Medicine. A Hand-Book for Students and Practitioners. By HENRY HARTSHORNE, A. M., M. D., etc. Third edition, thoroughly revised. Phila.; Henry C. Lea, 1871, 1 vol., cloth, 8 vo. Price \$2.38.

The present edition of Dr. HARTSHORNE'S *Essentials* is increased by a variety of new matter on the topics of tuberculosis, relapsing fever, carbolic acid, hydrate of chloral, etc. He author expresses his belief that the views, in some degree peculiar, which he advocated in his first edition, are now more generally recognized by the profession than formerly. The instances, as examples, the doctrines he advocates in regard to the pathology of inflammation, the value of venesection, the error of indiscriminate stimulation, and the uselessness of personal quarantine in yellow fever and cholera.

Whether his claim is correct in reference to the last mentioned of these topics is open to question, but the benefit derived from a full discussion of such important subjects in a popular work cannot be doubted.

Treatment and Prevention of Decay of the Teeth. A Practical and Popular Treatise. By ROBERT ARTHUR, M. D., D.D.S., with thirty-eight illustrations. Philadelphia: J. B. Lippincott & Co., 1871. 1 vol., 12 mo., pp. 256.

The author of this work intimates that he designs it to be of a popular, rather than a

scientific character. It is to be regretted that he has attempted to give it this form, for it is not well adapted for popular instruction, and a semi-popular style is not apt to command the attention of scientific men.

What we mean may be illustrated by the chapter on the Prevention of Decay "described in detail." This is solely by separating teeth closely in contact, which are threatened with decay. This is an important step, and deserving of wider recognition by dentists. But it is by no means the *only* means of preventing decay, and the chapter omits very many other details, which, in a *popular* work, should be introduced.

The author's views, however, deserve a careful reading by all dental specialists. He brings a long experience, and considerable thought to bear on the plans he prefers and recommends. Evidently he is an original and careful observer, and the method he proposes commends itself to physiology and common sense.

A Text Book of Pathological Histology; an Introduction to the study of Pathological Anatomy. By Dr. EDWARD RINDFLEISCH, Professor in Bonn; translated from the Second German Edition, with permission of the author, by WILLIAM C. KLOMAN, M. D., assisted by F. T. WILES, M. D., Professor of Anatomy, University of Maryland; with 208 illustrations. Philadelphia: Lindsay & Blakiston. 1 vol. 8vo pp. 695. Price, cloth, \$6.00; sheep, \$7.00.

This admirable work is the production of years of labor and conscientious study. The author notifies us in his preface, that it "originated more at the microscope, than at the writing table." There is not a page that does not bear the traces of original investigation. It may justly be considered the *standard treatise* on pathological histology.

It is divided into two parts; the first General, the second Special. In the former the author describes the decomposition and degeneration of tissues, and pathological new formations. In the latter, the anomalies of the various tissues and organs are examined specifically and thoroughly. Numerous examples and illustrations are interspersed, showing minutely the various new growths and structural alterations to which all the tissues are liable. The most recent researches of other observers are embodied, and impartially criticized.

The illustrations are well made, and judiciously chosen. A new and useful feature is a "biographical index" in which references are given not merely to the body of the text, but to various monographs and articles on the topic in serial publications.

MEDICAL AND SURGICAL REPORTER

PHILADELPHIA, NOVEMBER 25, 1871.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

✓ Medical Society and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

✓ To insure publication, articles must be *practical*, *brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

✓ Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

THE REPORTER--1872.

We have everything to encourage us to begin the year 1872 with **energy** and a determination to make the **MEDICAL AND SURGICAL REPORTER** *a better journal than ever*. The past has been by far the **best year** it has ever known. Its **circulation** has steadily increased, and is increasing. We have every reason to believe that we shall add **one thousand and new subscribers** to our list in the next three months, **outside** of the direct efforts of our present subscribers. **Let them exert themselves and our list will be doubled in that time.** Come, friends, try it now, and benefit yourselves and the cause of medicine by strengthening our hands! Always get the \$5 in advance and then retain one dollar cash for every annual payment from **new subscribers you send**, or order \$1.25 worth from our office in books, instruments, etc. *If you work for us we want to pay you for it.* Five new subscribers will pay your own subscription, or get you \$6 worth of books, etc. Our present subscribers are the best agents we can have, for they know the worth of the **REPORTER**. Now, be active in the next four weeks—and let us start the new year with a **rousing list of new subscribers!!**

The **Pocket Record** for 1872 is now ready. Those desiring a copy in season for beginning the year, should give us ample time to send it. But the **Record** can be used from any date. The patent clasp is a feature that makes it very popular with the profession, as does also the preliminary pages which contain a great deal of valuable information.

MEDICAL CLIMATOLOGY.

All who have taken an interest in general sanitary science will appreciate the high value to be attached to the study of medical geography. In the ordinary line of English textbooks, the only work which has given this topic any adequate consideration is **AIKEN'S Practices**, in the second volume of which there is a rather inaccurate and unsatisfactory medical chart of the world, sufficient, however, to illustrate the character of the problems which noso-geography undertakes to explain.

In the German language there were several complete and excellent treatises on the subject from the pen of Dr. A. MÜHRY, the most comprehensive of which is his *Klimatographische Uebersicht der Erde* (*Klimatographische Uebersicht der Erde*). This volume of nearly eight hundred pages, embraces a great number of carefully compared observations, and at present remains the standard work on this branch of science.

Little has been done in this country beyond the collection of isolated facts, and even of these there are hardly enough to supply a medical geography of the United States.

The proposition was recently made by Dr. GEO. W. LAWRENCE, to the State Medical Society of Arkansas, to enlist in the enterprise governmental aid. At the last session of that body, he remarked:

"Climatology is properly a medico-political subject—a topic of general importance to the human race. It not only interests medical men, but where a continent is considered, its advantages course all the ramifications of commerce. Consequently, it is not America alone that derives benefit from a correct knowledge of the climatology of the country, but nationalities and all the powers of the civilized world are interested and embraced in it.

"In climatology we require further important medical data—statistical climatic facts, especially concerning diseases throughout the United States and its adjacent territory—seeking it not only for the advantages of the living, but benevolently for those who may come after us.

"Government auspices alone can satisfactorily supply the desideratum—furnish us with the desired wants and thorough statistical information, carefully collected, that we may carry to posterity the transformations or relations that belong to the mutations of cycles, or the transitional life of a continent.

"Further particulars, more extended and closer observation, more comprehensive facts, other than those heretofore derived from BLODGETT's valuable contribution to science, on the climatology of the United States, are required in making a record for the country. At this era we should have replete knowledge of all that belongs to physical surfaces—of iso-latitudes, of iso-zones, carefully compared, from margin to margin, from the Atlantic to the Pacific. We desire scientific statistics for results—true iso-thermal lines throughout, from beyond the frost lines of our southern gulf-coast to the regions beyond the snow lines of British America. A knowledge of climatology and its dependencies should fill every reflective mind with contemplation. In its bearings, all classes of society, from the most erudite, through all the various avenues of enterprise and traffic, down to the thoughtful tradesman and husbandman, are benefitted; all should value the study and profit by its teachings.

"Officials, wherever signal service extends, should report the state of the weather, directions and force of the wind, mean temperature, Fah. (at 6 A. M., 12 M. and 6 P. M.) of the atmosphere. Also, barometric, hygrometric and ozonic conditions of the air. The weather gauge at each station should give full particulars—daily record and report the fall of rain, snow, hail, freezings, dew point, etc. If epidemic, endemic or any diseases are rife in any part of the domain, such diseases should be carefully noted for record. Research thus made in the interest of science, arts and medical literature should be carefully tabulated and regularly reported by the respective departments of the government. The elevations, mountain ranges, valleys, basins, plains, water courses, all physically determine the most important locations to be selected for signal service stations. The islands margining the Atlantic coast, Bermuda, Jamaica Hayti, Bahamas, Cuba, and Key West, Florida, stand prominent, and hold such relations to the continent that weather sentinels on the east and south-east should be erected, and all

friendly powers should co-operate for maritime protection. In the Pacific ocean the Sandwich islands westerly and the Gallipagos islands on the south-west of our territory, would give navigators warning when approaching the Pacific coast."

We are not sanguine in the belief that either the central or state government can be enlisted in this enterprise, but the suggestions of Dr. LAWRENCE are timely, and deserve general attention. Perhaps too much attention has been given to the personal factors of disease, and not enough to the extraneous causes which control life and health quite as much as habits and temperaments.

Something of the sort is said to be one of the objects of the American Medical Association, and we have not quite relinquished the hope that when that body has definitely settled the current political and ethical questions of the day, it will render important contributions to this department of medical science, among others.

Notes and Comments.

Cow-Pox.

It is stated, on the authority of Dr. HILBURN DARLINGTON, that the cow-pox prevails among the cattle in the neighborhood of Concordville, Delaware county, in this State. Dr. D. is using some virus, in his practice, taken from a heifer.

It is possible that the above statement is true, though we have never been satisfied that the true cow-pox, which is a disease *sui generis*, has ever existed in this country. Some physicians have been trying to produce the disease by inoculating the heifer with small-pox virus.

That does not produce true cow-pox, and we caution physicians to be careful how they experiment in that direction, or they will be unwittingly spreading the contagion of small-pox, instead of protecting their patients. We are not yet fully satisfied of the entire reliability of any of the so-called true cow-pox virus that it is sold in this country. Certain it is, that in Paris, several years ago, there was a great deal of vaccinating done with

"pure cow-pox virus," which entirely disappointed the expectations from it, except of the surgeon who created the excitement and performed the operation, and who made a fortune thereby. It was decided in the Academy of Medicine that his vaccinations were not protective.

So far as our own information and experience goes, we prefer to rely on the humanized virus, and that, we believe, is thoroughly reliable. The hue and cry against "impure virus," etc., is, we believe, almost entirely sensational. There are other ways for accounting for the occasional accidents from vaccination than by attributing them to impure virus.

In a notice (REPORTER, July 15, 1871, page 64,) of "an important operation" performed by Dr. THOMAS HAY, at York, Penna., we stated that the Doctor removed an inverted uterus, with an intra-mural fibrous tumor of the fundus, (an account of which case, with a wood-cut illustration, will be found in this number of the REPORTER, (p. 493), we inadvertently gave the Doctor's residence as at York, Pa., whereas, he was only sojourning there. The Doctor will shortly resume the active practice of his profession at his residence, in this city.

Correspondence.

DOMESTIC.

Darwinism.

EDS. MED. AND SURG. REPORTER:

In a late number of your valuable journal I notice a brief review of "The Descent of Man" and Darwinism. I am surprised at the superficiality of the views there expressed, and at the complete failure to grasp the subject at issue. The author of that editorial is destitute of even a vague and rudimentary knowledge of the vast subject on which he ventures to pronounce so decided an opinion.

Having been for years a student of Darwinism, and a firm believer in his hypothesis of evolution, it pains me to see one who, like yourself, belongs to the very front rank of medical and scientific progress, show so meager a knowledge of so splendid a theme. The careful perusal of "HERBERT SPENCER's Work" in connection with Mr. DARWIN's former work on the "Origin of Species," would have shown you how weak is the argument on which you seem to base so much.

You evidently forgot when you wrote that editorial, that in respect to man, important physical and anatomical changes are not now to be expected, as a product of natural selection, since variations in intelligence will be sooner seized upon by it than variations in physical structure. It is the brain that now gives man the superiority over man and over the brute. And what vast differences do we see around us in mental power, and in the ability to successfully compete with rivals in the struggle for existence, owing to the greater heterogeneity and complexity of the cerebral apparatus.

That the strongest mentally are the first in the race of life, and that those who know the most, have the most general intelligence, and are consequently the best adapted to their environment, are the "fittest," is a truism which I am surely not called upon to defend.

I should like well, Mr. Editor, if you would give me leave to write an article on Darwinism for your columns, in which I will endeavor to show the reasonableness of that hypothesis, if, indeed, hypothesis it be. The atomic theory is entirely hypothetical, and yet we could not well dispense with it, for no other hypothesis so well accounts for the facts. So with Darwinism. It accounts for the facts better than any other hypothesis.

I am convinced that no system of philosophy or religion has anything better than hypothesis at the bottom; then, for heaven's sake, let us found our beliefs on that hypothesis which is the most reasonable.

Yours, truly, *Rationis et Legis Cans,*
DARWINIAN.

[It is always easier to call names than to refute arguments, and the above better fully illustrates that respectable truism. We have advanced two arguments in this journal against the evolution of species—first, the law of minimum muscular action with maximum force; second, the existence of undeveloped as well as rudimentary organs. As we have not time, just now, to bestow "a careful perusal on HERBERT SPENCER's works, in connection with Dr. DARWIN's former work," and as our memory does not recall any discussion in either of those productions of the above arguments, we will cheerfully admit a *refutation of them* by our correspondent. But as we have Darwin's famous book at hand, we believe that unless we can understand the evolution theory from it, we would also fail to do so by looking through another's spectacles. Eds.]

Poisoning by Morphia treated by Belladonna.
EDS. MED. AND SURG. REPORTER:

I offer the following hastily composed article as a contribution to your valuable journal:

A few days ago, after returning from my country practice, at 5 P. M., a messenger awaited me at my office, to summon me hastily a few squares, to see a babe six months old. A little brother but four, in imitation of a doctor, had given it a carelessly placed morphia powder, composed of at least three-fourths opium. I had ordered it myself to the parent some few months before, to counteract an excruciating pain.

It will be noted that the drug was taken at 1 P. M., and I saw the patient at 5 P. M., four hours intervening. On seeing it, I found it useless to give an emetic, for the poison was already absorbed. The child was in a deep coma, with contracted pupil; respiration very slow, and almost imperceptible by inspection or palpitation; countenance suffused; surface cool, with cold extremities; pulse very feeble and threadlike. To arouse it from the coma was my first effort. This I tried to execute by flagellation, ammonia fumes to the nostril, cold showers, pricking the cuticle, and all other minor proceedings I could recall. Each answered for a moment, but the coma was so profound that finally all failed to impress the peripheral nerves sufficiently to call forth a response from the brain. I then ordered two vessels to be filled, one with warm the other with cold water, and immerse the patient alternately into the one and the other. This had the effect to produce a gasp or two. I then recalled the reading of an article on this subject, in a back number of the *REPORTER*, recommending belladonna. So with orders to continue the alternate immersions, I drove speedily to my office and obtained the tr. belladonna, gave at once grs L, repeating every 15 minutes, until three doses had been administered. My efforts were now directed to prevent sleep, until absorption took place.

Once I was almost discouraged, and felt like becoming skeptical in the use of the belladonna; but presently my doubts vanished, by discovering my little patient presenting signs of activity. By the time absorption had been fully effected the child was declared out of danger, and beyond the death grasp of the opium. What a change in that household!

My object in reporting the above case is to corroborate the statements of former articles in this journal on the efficacy of belladonna as an antidote to opium. Had I not have seen articles of the same kind in the *REPORTER*, I feel confident one little life would now be extinct. Thanks, then, to the ever welcome *REPORTER*, with its many matured contributors, scattering rich seeds of information throughout the entire continent.

W. G. BINKLEY, M. D.

Washington, Pa., Nov. 5, 1871.

—Dr. ROBERT A. CHRISTIAN, Acting Assistant Surgeon, U. S. A., at Fort Hays, Kansas, committed suicide on the 18th ult.

News and Miscellany.

Re-Vaccination.

On this subject, now so important, Professor GEORGE B. WOOD speaks as follows, in his "Practice of Medicine," vol. 1, pages 464-6-7, edition of 1866: "This operation should be employed in every case which has not been tested by exposure to small-pox contagion during an epidemic prevalence of the disease. It may be asked whether vaccination should be employed in persons previously affected with the small-pox. I should unhesitatingly answer this question in the affirmative. It has been before stated that, though fewer persons are attacked with varioloid after inoculation or natural small-pox than after vaccination, yet a great number perish. The same protection that a second vaccination extends in one case will probably be extended by vaccination in the other, and is even more needed, at least so far as life is concerned. It is generally stated in the books that vaccination after small-pox produces little or no effect. My own observation has been exactly the reverse. In concluding this subject I would again strongly urge the propriety of universal re-vaccination, as the means not only of promoting the comfort and possibly of saving the life of the individual, but also of preventing the spread of small-pox and of ultimately eradicating it, if not from the globe, at least from extensive communities."

—At the commencement exercises of the Syrian Medical College, Beyroot, six students received diplomas. Eleven appeared for the final examination, but the test was so severe that five were rejected.

MARRIED.

CLARK—HAHN.—On November 15th, at Clifton Springs, New York, by Rev. William B. Edson. Mr. Thomas Clark, of Philadelphia, and Miss Nettie M. Hahn, daughter of the late Dr. F. B. Hahn, formerly of Philadelphia.

McCORMICK—SMITH.—At the residence of the bride's parents, Nov. 24th, by the Rev. C. C. Salter, S. C. McCormick, M. D. and Lou. E. Smith, only daughter of Dr. V. Smith, all of Duluth.

PORTER—ELLIS.—November 16th, by the Rev. Joseph W. Porter, Dr. W. T. Porter, formerly of Philadelphia, and Miss Mary M., eldest daughter of Colonel S. M. Ellis, all of Phenixville, Pa.

STODDARD—HARRIMAN.—In Belfast, Me., October 26th, by Rev. W. L. Brown, Dr. George W. Stoddard, and Miss Amanda M. Harriman, both of Belfast.

DIED.

KELLEY.—November 20th, at Boston, Mass., Dr. John Wesley Kelley, son of the late Dr. John Clawson Kelley, of New York.

KENDALL.—At Reading, Pa., October 27th, 1871, Dr. Lucian B. Kendall, late of the U. S. Navy, late of Bergen county, N. J., son of the late Dr. R. M. Kendall, formerly of that city, in the 33d year of his age.